Work Orde September-23-1.				·	*107	128*						Page 1
Item ID: Revision ID:	D3197-041	— a			Accept	*N900	040	100)* s	etup Start	*N	S1*
Item Name:	Bar							** •*	4 - 3 - 3 - 4 - 4	Stop	*N:	S2*
Start Date: Required Date: Reference:	9/23/13 9/23/13	Start Qty Req'd Qty		*4* *4*		Cust Item I Customer:	D:	<u> </u>	The same section of the sa			
Approvals:	Process Pla	n: ()	 Da		Tooling:		ate:	-	R	un Star	* *N	R1*
	QC:	V		ite:	SPC (Y/N):		ate:		ig at	Stop ·	*N	R2*
Sequence ID/ Work Center II	D	Operation Description			Set Up/ Run Hours	Tool ID	Tool#	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Rev	ision Nbr										
D3197	Rev	В										
100					0.00				. 1			
100		BAND SAW							4	Ø		113-9-26
Bandsaw			Memo		0.00				-1			
Jeaspa Bandsaw		1	Cut blanks: 29.125	5" long					₩ <u>₹</u>			•
110 -					0.00				<i>;</i>		-	
110		HAAS CNC	VERTICAL MAC	CHINING #1					4	B		1/3-9-28
HAAS 1			Memo		0.00				/			
HAAS CNC vertica	Il machine #1	:	1-Face ends to leng and Dwg D31973-	ght per dwg D319 Deburr	72-Machine D3197-1 as po	er Folio FA340			·			
120		QC2- Inspec	t parts off machine	e FAI/FAIB	0.00							
120					0.00				4			SLB9-28
QC Quality Control			Memo		0.00							
· · · · · · · · · · · · · · · · · · ·			١.									

Date: SS r Jet
r Jet Engineering Ouality Other
r Jet Engineering Outher Olier
oor. Quality ging Other olier
ation QC Inspector
ation QC Inspector
Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
[

Out of Calibration Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

150

Chemical Conversion Coat per QSI005 4.1

0.00

150 HandFinish Hand Finishing

Memo

0.00

4 16,1340-1

		DQA:	Date:	
ICR: Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE			•

											QA Closed:	Date	2:	
Work Orde	÷.					DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS		
Part N	lo.					Rework Scrap Use-as-is Work Order Update	Machining Small Fab Prod. Eng. Coor. Qual Thermoforming Finishing Rec/Store/Packaging Oth Large Fab Composite Supplier							
Root	I				Descri	ption of work order update	Π	nitial	Ac	tion	Sign &			
Cause	- {	Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	ription	Date	Verification	QC Inspector	
Doc/Data														
Equip/Tooling														
Operator														
Material														
Setup						•								
Other			1											
Process]											
Supplier														
Training			}											
Unapproved							$oldsymbol{ol}}}}}}}}}}}}}}}}}$							
							AUL	T CATE	GORY					
Landi					_	General	_	1			7	г		
	Ш	Bending			L	Bend	-	Grain			Ovalized	<u> </u>	Pressure/Forced	
		Centre No	ot Conce	ntric to (D/S	BOM/Route		Hardwa			Over/Under	⊢	Temperature/Cure	
	Ш	Cracks	_		<u> </u>	Broken/Damaged	\vdash	4 '	ion Incomplete		Part Incorre	-	Weld	
	Ш	Crushed/	'Crimped		<u> </u>	Burrs	\vdash	4	tions Incomplete/	Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled	
	\vdash	Cuffs			<u> </u>	Contamination	_	4	enance	<u> </u>	Part Moved			
	\vdash	Heat Trea			<u> </u>	Countersink	\vdash	Mislab		_	Positioned V		—	
	-	Inspectio		Tube	<u> </u>	Cut Too Short	<u> </u>	Misrea	d		Power Loss/	Surge [Other	
	Ш	Ripples in		_	<u> </u>	Drill Holes	—	Offset	- 14					
	\vdash	Torque V			\	Drawing	\vdash	4	Calibration					
	<u> </u>	Turning S	•		L	Finish	\vdash	4	Sequence					
		Wave/Tw	vist in Tul	be	l	Folio		Outside	Dimensions		_			

September-23-1	3 11:09:24 A	M		^1()/	178*							Page 3	3
Item ID: Revision ID: Item Name:	D3197-041 Bar			Accept	*N9000	140°	100	* S	etup S	Start Stop		S1* S2*	Temperature (Control of Control o
Start Date: Required Date Reference:	9/23/13 : 9/23/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*		Cust Item ID Customer:								
Approvals:		in:				e:		R		Start Stop	*N *N	R1* R2*	
Sequence ID/ Work Center I 160 *160* Powdercoat Powder Coating 170 *170* QC Quality Control		Operation Description Grey Sandtex(Ref:4.3.5.6 Memo START TIM 3 3 3 (QC3- Inspect Part Finish Memo	E: FINISH TIME:	Set Up/ Run Hours 0.00 0.00 OVEN TEMPERATURE 0.00 0.00		Tool#	Code	Accept Qty	Reject Qty	1 J	Reject Number	Insp. Stamp	7
*180 *180* Small Fab Small Fab		Small Fab Memo Assemble D	3197-041 as per Dwg D	0.00 0.00		٠	-	4				FF 3-10.	-28

												DQA:	Da	ite:	
NCR: Y	'es	/ No				WORK ORDER NON-	COI	NFORM	MANCE / UP	DATE		·			
												QA Closed:	Da	ite:	
Mark Orda						DISPOSITION				AGAINST I	DE	PARTMENT	PROCESS		
Work Orde	er: -					Rework	ו		Skid-tube	Crosstube		ļ	Water Jet		Engineering
Part N	ما					Scrap	┨		Machining	Small Fab		Pro	d. Eng. Coor.	-	Quality
Paitin	١٠٠.					Use-as-is	1		noforming	Finishing			e/Packaging	-	Other
NCR N	J۸					Work Order Update		1110111	Large Fab	Composite		1100,010	Supplier		
110	•••												• • •		
Root					Descri	ption of work order update		Initial	Ac	tion		Sign &			
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Desc	ription		Date	Verificatio	n_	QC Inspector
Doc/Data															
Equip/Tooling															
Operator															·
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Setup															
Other				ļ											
Process															
Supplier															
Training			ĺ												
Unapproved		_	<u> </u>												
							AUI	LT CATE	GORY				··		
Landi	ng (Gear			_	General	_	,		,		1		_	· •
		Bending				Bend		Grain				Ovalized		\vdash	Pressure/Forced
		Centre N	ot Conce	ntric to	O/S	BOM/Route	\perp	Hardwa				Over/Under		\perp	Temperature/Cure
	L	Cracks			ļ	Broken/Damaged	\perp	-d :	ion Incomplete			Part Incorred		L	Weld
1	ļ	Crushed/	'Crimped			Burrs		Instruct	tions Incomplete/	'Unclear		Part Lost/Mi	ssing		Wrong Stock Pulled

Maintenance

Out of Calibration
Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Part Moved
Positioned Wrong

Power Loss/Surge

Other

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish Folio

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cuffs

Heat Treat

Work Ord September-23-1					Page 4								
Item ID: Revision ID: Item Name:	D3197-041			Accept	*	N 900	040	100)*	Setup	Start Stop		S1* S2*
Start Date: Required Date: Reference:	9/23/13	Start Qty: 4.00 Req'd Qty: 4.00	*4* *4*			Cust Item I Customer:	D:					IV.	
Approvals:		an:					ate:			Run	Start Stop	*N *N	R1* R2*
Sequence ID/ Work Center I 190 *1 QA QC Quality Control	D	Operation Description QC5- Inspect part comp Memo	leteness to step on W/O	0.00	Up/ Hours DAS 27 9-89 13 10 28	Tool ID	Tool#	Plan Code	Accep Qty	t Rej Qty	•	Reject Number	Insp. Stamp
200 *200* Packaging Packaging		Identify as per dwg & Si	tock Location: 5733	0.00			DAS 6 989	1	4	13	13	Æ	
²¹⁰ *210*		QC21- Final Inspection	- Work Order Release	0.00					J.	\/M	13-1	0-20	f
QC		Memo		0.00					' / /	7			

Quality Control

013-10-26

											DQA:	Date	: <u> </u>
NCR: Y	⁄es	/ No				WORK ORDER NON-C	100	NFORN	AANCE / UP	DATE			
											QA Closed:	Date	:
Work Orde						DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
WOIK OIGE	-					Rework	1	İ	Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	۷o.					Scrap	1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
	•		· · · · · · · · · · · · · · · · · · ·			Use-as-is	1	1	noforming	Finishing	-	re/Packaging	Other
NCR I	No.					Work Order Update]		Large Fab	Composite]	Supplier	
Root			}		Descri	l ption of work order update		Initial	Ac	tion	Sign &		
Cause		Date	Step	Qty	C	or Non-conformance	Cr	nief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data									,				
Equip/Tooling													
Operator	Ш												
Material			İ										
Setup													
Other	Ш		1										
Process				į									
Supplier							1						
Training			}										
Unapproved													
						F	AUI	LT CATE	GORY				
Landi	ng (ear	* y		`	General					٦	_	_
		Bending				Bend	\perp	Grain		Ĺ	Ovalized	_	Pressure/Forced
		Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	re		Over/Under	—	Temperature/Cure
•		Cracks				Broken/Damaged Inspection Incomplete Part Incorrect							Weld
		Crushed/	'Crimped		L	Burrs		-1	ions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled
	\perp	Cuffs				Contamination		Mainte			Part Moved		4
		Heat Tre	at		L	Countersink		Mislabe		<u> </u>	Positioned \		
		Inspection	n Strip in	Tube		Cut Too Short	L	Misread	d .		Power Loss/	Surge	Other
		Ripples in	n Bend		1	Drill Holes		Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

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Picklist Print

September-23-13 11:09:23 AM

Work Order ID:

107128

Parent Item:

D3489-3-200

M7075T73R1.000

7075-T73 Rd Bar 1.00

Pip Pin

D3197-041

Manufactured

Purchased

No

No

Location

GA

Parent Item Name:

Bar

Start Date: 9/23/13

Required Date: 9/23/13

FF 13-10-28

12.1

2.42

Start Qty: 4.00

Required Qty: 4.00

Comments:	IPP Rev: A New IPP Rev: B As pe		JLM JLM										
Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN960JD10 WASHER	NAS1149D0363J	Purchased	No	1263	9	180	Each	0.0000	6	24 24	FF	/3	-10-28
D2690-5 Lanyard Ass'Y		Manufactured	No		•	180	Each	31.0000	2	8	FF	13	-10-25
				Location		Loc Oty	Lo	oc Code					
				ST014		31				····			
					722	3							
					2708	15				y _			
					3017 3805	4	I			7—			
D3242-1 Tag		Manufactured	No	. 02		180	Each	16.0000	2	8	FF	- [2	3-10-26
				Location		Loc Qty	<u>La</u>	oc Code					
				GA 🙈	A COLUMN TO THE PARTY OF THE PA	16	5			#			
				102	2026	8	}			-0			
	1			102	2980	8	}			<u>Ø</u>			

180

180

Loc Qty

Location	Loc Qty	Loc Code	
MAT012	54.75		
125586	18.75		
m126310	36		19178

Each

4.0000

54.7500

Loc Code

											DQA:	Date:	
NCR: Y	'es /	No			•			· · · · · · · · · · · · · · · · · · ·					
											QA Closed:	Date:	
Work Orde	ar.					DISPOSITION			AC	GAINST DEI	PARTMENT	PROCESS	
VVOIR OIGE	· —					Rework	1		Skid-tube Cro	sstube		Water Jet	Engineering
Part N	lo.					Scrap	1		Machining Sm	nall Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is]	Thern	noforming Fi	nishing	Rec/Stor	e/Packaging	Other
NCR N	۰. <u>—</u>		,. <u> </u>			Work Order Update]		Large Fab Com	nposite		Supplier	
	r					<u></u>	لـــ	<u> </u>			s: 0	, , , , , , , , , , , , , , , , , , , ,	<u> </u>
Root			_			ption of work order update		Initial	Action		Sign &	.,	
Cause	\perp	Date	Step	Qty		or Non-conformance	Ch	nief Eng	Description	1	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling	Щ		1										
Operator	Щ											:	
Material	Ш												
Setup													
Other	Ш												
Process		•										-	
Supplier		į										:	
Training		,											
Unapproved							L						
						F	AUL	LT CATE	GORY				
Landi	ng Gea	ar				General		-		_	i	_	_
	Ве	ending				Bend		Grain			Ovalized		Pressure/Forced
1	∐C€	entre No	ot Conce	ntric to	o/s	BOM/Route		Hardwa	ıre		Over/Under	tolerance	Temperature/Cure
	∐_Cr	acks				Broken/Damaged	L	Inspect	ion Incomplete		Part Incorred	ct	Weld
	Cr	ushed/	Crimped			Burrs		Instruct	tions Incomplete/Unclea	r [Part Lost/Mi	ssing	Wrong Stock Pulled
	Cı	uffs				Contamination		Mainte	enance		Part Moved		
	Пн	eat Trea	it			Countersink	Г	Mislabe	eled		Positioned V	Vrong	

Misread

Out of Calibration
Out of Sequence

Outside Dimensions

Offset

Other

Power Loss/Surge

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Inspection Strip in Tube

Torque Waves in Extrusion

Cut Too Short

Drill Holes

Drawing

Finish Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

September-23-13 11:09:24 AM

Work Order ID:

107128

Parent Item:

D3197-041

Parent Item Name:

Bar

Start Date: 9/23/13

Required Date: 9/23/13

Start Qty: 4.00

Required Qty: 4.00

MS21042L3 Nut	Purchased	No		180	Each	5,946.0000	2	8	FF 13-10-20
			Location	Loc Qty		Loc Code			
			FP001	3					
			122141	3					
			GA	18					-
			122452	18					
			ST314	304					
			111668	1					
			117885	32					
			119017	55					
			119075	138					
			123265	43					
			M126036	35					
			ST506	1249					
			123900	870					
			124291	379					
			ST510a	4372					
			M126275	372				\$	
			M126333	4000					
MS27039-1-24	Purchased	No		100	Each	26.0000	2		
Screw	Turchascu								FF 13-10-28
5 			Location	Loc Qty		Loc Code			
			GA	26			_	_	
			121912	26			δ	7	

		DQA:	Date:	
NCR: Ves / No	WORK ORDER NON-CONFORMANCE / LIPDATE			

										QA Closed:	Date	2:
Work Orde	ŕ:				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
Part No			Rework Scrap Use-as-is Work Order Update	TI	Machining Small Fab Thermoforming Finishing		Crosstube Small Fab Finishing Composite	Prod. Eng. Coor. Rec/Store/Packaging		Engineering Quality Other		
Root				Descri	ption of work order update	pdate Initial Action		ction	Sign &			
Cause	Date	Step	Qty		or Non-conformance	Chief	Eng	Desc	cription	Date	Verification	QC Inspector
Doc/Data Equip/Tooling							Ü		•			
Operator Material												
Setup	_											
Other	_											
Process	\dashv	ļ										
Supplier Fraining	\dashv					•						
Jnapproved	\dashv		:									
Shapproved		<u> </u>	L		F	AULT C	ATE	GORY			L	<u> </u>
Landin	g Gear				General							
ſ	Bending				Bend	Gra	ain		[Ovalized	Γ	Pressure/Forced
. [Centre No	ot Conce	ntric to (o/s	BOM/Route	Hai	rdwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	Ins	pecti	on Incomplete		Part Incorre	ct [Weld
	Crushed/	Crimped			Burrs	Ins	truct	ions Incomplete/	/Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled
	Cuffs				Contamination	Ma	ainte	nance		Part Moved	-	
Ļ	Heat Trea				Countersink	ЩМi:	slabe	led		Positioned V	Vrong	_
<u> </u>	Inspection	•	Tube		Cut Too Short	\vdash	sreac	I	. [Power Loss/	Surge	Other
].	Ripples in				Drill Holes		fset				·	
].	Torque W			1	Drawing			Calibration		· · · · · · · · · · · · · · · · · · ·		
}	Turning S	-		<u> </u>	Finish	Out of Sequence						
	Wave/Tw	ist in Tul	oe e		Folio	. Ou	itside	Dimensions				

DART AEROSPACE LTD	Work Order:	107128
Description: Bar	Part Number:	D3197-1
Inspection Dwg: D3197 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

X First Article	Prototype
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Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
29.00	+/-0.030	29.00		·	n-lape	
25.06	+/-0.030	25-06				
11.44	+/-0.030	11.450			vern	CNC-03
0.500	+/-0.010	.500			vern_	21-10
0.250	+/-0.030	-261			~	
Ø0.219	+0.005/-0.000	-220			~	
Ø0.191	+0.005/-0.000	. 193	/		~	
1.000	+/-0.005	1.000			~	
2.69	+/-0.030	2.678			~	
1.000	+/-0.010	1,000				
0.300	+/-0.010	-303	1		^	
0.063 x 45°	+/-0.010	-06X45°	1		٨	
Ø1.000	+/-0.010	998			-	

Measured by:	77	Audited by:	Onl	Prototype Approval:	N/A
Date:	13-9-28	Date:	13/09/30	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.04.20	New Issue (P/O D3197-041)	KJ/JLM).A	
В	07.03.09	Dwg revision update	KJ/JLM	E
	07:00:00	1 - 9 - 1		

